

ABSTRACT OF THE DISCLOSURE

A bidirectional pneumatic impact wrench has a pneumatic motor and an air control valve. The pneumatic motor has a forward air inlet and a reverse air inlet. The air control valve directs compressed air selectively into either the forward air inlet or the reverse air inlet to change the direction of rotation of the pneumatic motor and includes a rotatable shaft. The shaft has an exterior surface and a spiral forward air groove and reverse air groove that are symmetrically defined in the exterior surface to direct the compressed air efficiently. The air control valve is simple to fabricate and directs the compressed air efficiently into the pneumatic motor to improve power and efficiency of the pneumatic motor.